UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IV
345 COURTLAND STREET, N.E.
ATLANTA, GEORGIA 30365



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May 23, 1995

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4WD-SSRB

Ms. Judie Kean
Florida Department of Environmental Protection
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

SUBJ: Response to FDEP Comments on Baseline Risk Assessment
Chevron NPL Site
Orlando, FL

Dear Ms. Kean:

I am responding to FDEP's comments received May 10 regarding the project noted above. As noted by your own risk assessors, most of FDEP's comments regarding this project have already been addressed. Other comments have been discussed many times between our respective agencies ($10^{-6}$ risk level, etc.). Responses to most of your comments are incorporated within the Baseline Risk Assessment dated March 24, 1995. Specific responses to your comments are presented in the following paragraphs.

Comment #1: What was the rationale for the soil cleanup levels and depth of previous soil excavations? FDEP input was not sought.

Response: The first soil excavation occurred onsite during 1992. Excavation depths ranged from one to ten feet below land surface. Confirmation soil sampling indicated that soil cleanup levels, established by ATSDR, had been achieved. During the period from 1991 to 1992, EPA coordinated the removal activities with the FDEP district office located in Orlando.

The second soil excavation, at the Armstrong Trailer Park, occurred during 1994. Confirmation soil samples were collected from the base and sides of the excavated areas. The sampling results confirmed that excavation to a depth of one foot below land surface had achieved the cleanup goals. During the period from May 1993 to May 1994, EPA coordinated the Site activities with FDEP's Site Screening Section in Tallahassee.

It is likely that FDEP's Hazardous Waste Section in Tallahassee became more involved when the Site was finalized

on the NPL in May 1994.

Comment #2: What is an acceptable risk level for soil? FDEP does not accept EPA's risk range.

Response: EPA's definition of an acceptable risk level was published in the Federal Register, dated March 8, 1990 and can be found in 40 CFR 300.430 (e)(2)(i)(A)(2): "For known or suspected carcinogens, acceptable exposure levels are generally concentration levels that represent an excess upper bound lifetime cancer risk to an individual of between $10^{-4}$ and $10^{-6}$ using information on the relationship between dose and response."

I understand that FDEP prefers to set the acceptable risk level at $10^{-6}$. I also understand that institutional controls may be used to meet the $10^{-6}$ risk level.

Comment #3: Alpha-BHC should have been included in the quantitative risk assessment for onsite surface soils.

Response: As shown in the enclosed, EPA has considered the impact of adding alpha-BHC as a contaminant of concern in surface soil. Adding alpha-BHC as a contaminant of concern results in a slightly higher carcinogenic risk for each effected pathway; however, the overall carcinogenic risk for each receptor does not increase.

Comment #4: 2-methylnapthalene should be included in the calculation of onsite risks.

Response: 2-methylnapthalene was included in the risk calculations, to the extent possible. As noted in the footnote for Table 2-5, page 2-12 of the BRA, this compound does not have an EPA-approved reference does or cancer slope factor. Therefore, it is not possible to quantify the risks associated with this compound.

Comment #5: The BRA should include RGOs for scenarios that involve risk greater than $10^{-6}$.

Response: The first paragraph of Section 6.0 of the BRA, Remedial Goal Options, states that RGOs were developed for all exposure pathways that have a total carcinogenic risk exceeding $10^{-4}$ or a total hazard index that exceeds 1.0. Individual chemicals contributing risks to these pathways had RGOs developed if their contribution was greater than or equal to $10^{-6}$ for carcinogens or yielded a hazard quotient greater than or equal to 0.1 for noncarcinogens. This method is based on EPA Region 4 policy regarding RGOs.

Comment #6: Florida secondary standards and minimum

criteria should be used as groundwater standards for this Site.

Response: It is my understanding that secondary standards and minimum criteria are preferred by FDEP when primary standards have been exceeded in groundwater and when an active groundwater treatment remedy is planned.

Comment #7: The BRA should include the RGO for dieldrin for the future construction worker, among others.

Response: See response #5. In addition, a review of table 5-9 indicates that only two contaminants, aldrin and chlordane, satisfy the criteria noted in response #5 and thus require the calculation of RGOs.

I hope the above responses satisfy FDEP's comments regarding the risk assessment. As noted in your letter, EPA and FDEP are awaiting the results of additional sampling conducted in April. The results will be forwarded to you as soon as they are available. I look forward to selecting an appropriate remedy for this Site, with input from FDEP. If you have any questions, please call me at (404) 347-2643, ext. 6241.

Sincerely,

Randy Bryant

Randy Bryant
Senior Remedial Project Manager
South Superfund Remedial Branch

Enclosure

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# Department of Environmental Protection

SOUTH
REMEDIAL
BRANCH

May 10 2 08 PM '95

Lawton Chiles
Governor

Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Virginia B. Wetherell
Secretary

May 8, 1995

Mr. Randy Bryant
South Superfund Remedial Branch
EPA Region IV
345 Courtland Street N. E.
Atlanta, Georgia 30365

Subject: Chevron Chemical
Baseline Risk Assessment-Review Comments
[Document Received April 5, 1995]

Dear Randy:

Please find attached review comments from Ligia Mora-Applegate, FDEP Technical Review Section and Dr. Steve Roberts for the above referenced document.

I have reviewed all information and note that many comments have previously been submitted to EPA and I am concerned that there has been little communication regarding these important issues. Please respond in writing regarding both comment letters.

Since the Draft ROD incorporates many of these same issues, it is imperative to resolve these problems before further site evaluation is complete. As previously discussed, the FDEP is now awaiting the latest sampling results for Site groundwater data and Armstrong Trailer Park soil data. Please feel free to contact me at 904-487-3299

Sincerely,

Judie Kean

Judie Kean, Project Manager
Hazardous Waste Cleanup Section

JK/jk
Attachments

cc: File copy
Ligia Mora-Applegate

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**Florida Department of**

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# Environmental Protection

Bureau of Waste Cleanup

MAY 8 1995

Hazardous Waste Cleanup Section

**TO:** Judi Kean, Hazardous Waste Section, BWC

**THROUGH:** Jim Crane, Technical Review Section, BWC JC

**FROM:** Ligia Mora-Applegate, Technical Review Section, BWC

**DATE:** May 4, 1995

**SUBJECT:** **Baseline Risk Assessment for the Chevron Orlando Site Orlando, Florida**

I have reviewed the subject document prepared by Black & Veatch Waste Science, Inc. I have also read Dr. Steve Roberts' (UF toxicologist on contract to FDEP) comments. I concur with him and recommend that they be addressed. In addition, I have the following concerns:

1.0 When the soil excavation occurred the State input was not sought; only one foot of contaminated surface soil was removed. It is DEP's standard operating practice to address surface soil to two feet in depth.

2.0 The soil cleanup goals were chosen without input from the State.

3.0 Most of the comments from previous risk assessments have been addressed, but there are still issues that have been raised over and over (see my previous memoranda) and they are still being ignored, such as the standards that apply to groundwater and the acceptable risk level of 1.0E-06 for soil.

cc: John Armstrong

3 12 0144

UNIVERSITY OF FLORIDA

Center for Environmental & Human Toxicology

One Progress Boulevard, Box 17
Alachua, Florida 32615-9495
Tel.: (904) 462-3277
Fax: (904) 462-1529

May 4, 1995

Ligia Mora-Applegate
Bureau of Waste Cleanup
Florida Department of Environmental Protection
Room 471A, Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, FL 32399-2400

Dear Ms. Mora-Applegate:

I have reviewed at your request the Baseline Risk Assessment for Chevron Orlando Site, Orlando, FL, prepared by Black & Veatch Waste Science, Inc. and dated March 24, 1995. Many of the errors noted in my August 26, 1994 review of the previous draft have been corrected; however, some criticisms remain. These are discussed in the following comments:

1. In at least one instance, frequency of detection was used improperly to eliminate contaminants as chemicals of concern. According to RAGS, Part A, it is acceptable to "Consider the chemical as a candidate for elimination from the quantitative risk assessment if: (1) it is detected infrequently in one or perhaps two environmental media, (2) it is not detected in any other sampled media or at high concentrations, and (3) there is no reason to believe that the chemical may be present." [emphasis added]. In the case of alpha BHC, which was eliminated as a chemical of concern in surface soil based on a frequency of detection less than 5% (see Table 2-2), the latter two criteria were clearly not met. In the samples where alpha-BHC was detected in surface soils, it was present in concentrations ranging from 10 to >1,000-times its screening value – unquestionably, these represent high concentrations. Also, in a site where the contamination is primarily pesticides, there is every reason to suspect that alpha-BHC might be present, and it should not have been eliminated from the quantitative portion of the baseline risk assessment.

2. Unless 2-methylnaphthalene was present only in subsurface soil (i.e. > 2 ft below land surface), it should have been included in the calculations of on-site risks to receptors.

3. Estimated cancer risks from soil exposure for the current onsite adolescent trespasser (1E-05) and offsite resident (2E-05) exceed cancer risk goals typically accepted by FDEP (viz., 1E-06). Accordingly, RGOs for soils should be developed for these scenarios. With regard to future scenarios, RGOs are in place and acceptably calculated for each of the scenarios except the adult worker. The estimated cancer risk for this scenario (2E-05) is above the cancer risk goal of 1E-06, and RGOs specific for this scenario should therefore be developed.

4. RGOs for groundwater (Tables 6-2 and 6-3) currently include only Florida primary standards. This list should also include Florida secondary standards and minimum

criteria – all are relevant in determining groundwater concentrations that will be acceptable to the State.

5. Why, in the revised baseline risk assessment, was dieldrin removed from the RGO table for the future construction worker? It has a higher calculated risk than aldrin, which remained in the RGO table for this scenario. Several other chemicals were also removed from the RGO tables for other scenarios. Some explanation should be provided.

6. The Uncertainty Analysis is so brief and uninformative that it might as well be eliminated.

Should you have any questions regarding these comments, please do not hesitate to contact me.

Sincerely,

Stephen M. Roberts, Ph.D.